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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,768	04/05/2006	Karine Valle	13777-45	1613
45473	7590	05/24/2010	EXAMINER	
BRINKS, HOFER, GILSON & LIONE P.O. BOX 1340 MORRISVILLE, NC 27560				CHOI, LING SIU
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
05/24/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/542,768	VALLE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ling-Siu Choi	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 February 2010.  
 2a) This action is **FINAL**.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 31-67 is/are pending in the application.  
 4a) Of the above claim(s) 50-60 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 31,35,36,38-43,46-48,62,66 and 67 is/are rejected.  
 7) Claim(s) 32-34,37,44,45,49,61 and 63-65 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 20 July 2005 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/09/2010</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

1. This Office action is in response to the Amendment filed 02/04/2010 and IDS filed 02/09/2010. Claims 1-30 were cancelled and claims 31-67 are now pending, wherein claims 50-60 have been withdrawn due to the election/restriction requirement.
2. In view of the Amendment, the rejections of 31-34, 37, 42-46, 49, 61, and 67 under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brinker et al. (US 6,270,846 B1) are withdrawn

### ***Claim Analysis***

3. Summary of Claim 31:

An organic-inorganic hybrid material comprising two phases:	
	<b>a first, mineral phase</b> comprising a structured mesoporous network with open porosity; wherein the structured mesoporous network exhibits an <u>organized structure with a repeating unit</u> ; and
	<b>a second, organic phase</b> comprising an organic polymer, said organic phase not participating in creating the structured mesoporous network of the mineral phase and being essentially not present inside the pores of the structured mesoporous structure of the mineral phase

### ***Claim Rejections***

4. **The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

**A person shall be entitled to a patent unless –**

**(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

5. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

**(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.**

***Claim Rejections - 35 USC § 102***

6. Claims 31, 35-36, 38-43, 46-48, 62, and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Bardot et al. (US 5,342,521).

The rejection is adequately set forth in the paragraph 9 of the previous Office Action dated 08/06/2009 and is incorporated herein by reference.

***Claim Rejections - 35 USC § 102/103***

7. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bardot et al. (US 5,342,521) in view of Wu (US 6,465,052).

The rejection is adequately set forth in the paragraph 11 of the previous Office Action dated 08/06/2009 and is incorporated herein by reference.

***Response to Arguments***

8. Applicant's arguments filed 02/04/2010 have been fully considered but they are not persuasive.

Applicants: “Given Bardot's silence regarding the structure of the mesoporous layer and the understanding of one of ordinary skill in the art with regard to mesoporous materials, Applicants submit that the invention of claim 31 is neither anticipated by nor rendered obvious by Bardot. As such, Applicants respectfully request reconsideration and withdrawal of the instant rejection.”

Bardot's silent does not necessarily imply that the mesoporous material disclosed by Bardot does not have structured mesoporous network. In view of the statement disclosed in page 5 of the present specification: “Structured mesoporous materials ....exhibit an organized spatial layout of mesopores. **This spatial periodicity of the pores is characterized by the appearance of at least one low-angle peak in an X-ray scattering diagram**; this peak is associated with a repeat distance which is generally between 2 and 50 nm. **The mesostructure is verified by transmission electron microscopy**” (page 5 of the Specification)", there are experimental methods to distinguish “structured mesoporous network” from common “mesoporous network”.

Since the rejections of 31-34, 37, 42-46, 49, 61, and 67 under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brinker et al. (US 6,270,846 B1) are withdrawn, **claims 32-34, 37, 44, 61, and 63-66 are objected to** as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Ling-Siu Choi/

Primary Examiner, Art Unit 1796

May 20, 2010

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